APPENDIX J:
SUMMARY OF SURFACE WATER RESOURCES AND WATER QUALITY

APPENDIX J-1
SUMMARY OF SURFACE WATER IN THE ANALYSIS AREA

Surface Water Body[a]	Number of Crossings[b]			Flow Measured at nearest crossing[c]	Stream Classification[d]	303(d) Status[e]	Water Quality Summary[f]	Percent of Analysis Area Containing SubBasin
	Alt 2	Alt 3	Alt 4					
Upper Missouri-Sun-Smith Basin (HUC 10030102)								
Missouri River	NC	NC	NC	13,100 cfs (2005) Great Falls	B-2	5	Yes	
Black Horse Lake (west finger) 8 acres	1	1	NC	ND	Not classified	NL	No	10.0
Benton Lake	NC	NC	NC	ND	B-3	5	Yes	
Unnamed Lake (22 acres)	NC	1	NC	ND	Not classified	NL	No	
Lake Creek	NC	NC	1	ND	B-3	5	No	
Teton River Basin (HUC 10030205)								
Teton River	1	1	NC	547 cfs (2005) Chouteau	B-3	4A	Yes	18.4
Muddy Creek	NC	NC	NC		B-2	3	Yes	
Marias River Basin (HUC 10030203)								
Unnamed Lake (7 acres)	1	1	NC	ND	Not classified	NL	No	
Unnamed Lake (7.6 acres)	1	1	NC	ND	Not classified	NL	No	
Pondera Coulee	1	1	1	15 cfs (2005) Conrad	B-2	5	No	
Spring Coulee	66.8	62.5	66.8 (Alt 2)	173 cfs (1982) Power	B-2	3	No	54.7
Dry Fork Marias	1	1	1	2,130 cfs (1986) Dupuyer	B-3	1	Yes	
Schultz Coulee	1	NC	1	ND	B-2	NL	No	
Bullhead Creek	1	1	1	ND	B-2	NL	No	
Big Flat Coulee	NC	NC	6	ND	B-2	NL	No	

APPENDIX J-1
SUMMARY OF SURFACE WATER IN THE ANALYSIS AREA

Surface Water Body[a]	Number of Crossings[b]			Flow Measured at nearest crossing[c]	Stream Classification[d]	303(d) Status[e]	Water Quality Summary[f]	Percent of Analysis Area Containing SubBasin
	Alt 2	Alt 3	Alt 4					
Little Flat Coulee	NC	NC	NC	ND	B-2	NL	No	54.7
Hilger Coulee	NC	NC	NC	ND	B-2	NL	No	
Sand Coulee	NC	NC	NC	ND	B-2	NL	No	
Rocky Springs Coulee	NC	NC	NC	ND	B-2	NL	No	
Buckley Coulee	NC	NC	NC	ND	B-2	NL	No	
Marias River[g]	1	1	1	5,160 cfs (2005) Shelby	B-2	2	Yes	
Two Medicine River Basin (HUC 10030201)								0.2
Two Medicine River	NC	NC	NC	ND	B-1	2 & 2A	Yes	
Cut Bank Creek Basin (HUC 10030202)								6.7
Cut Bank Creek	NC	NC	NC	4,060 cfs (2005) Cut Bank	B-2	5	Yes	
Old Maids Coulee	NC	NC	NC	ND	B-1	5 & 2B	Yes	
Spring Creek	NC	NC	NC	ND	B-1	NL	No	
Big Rock Coulee	NC	NC	NC	ND	B-1	NL	No	
Hay Lake (115 acres)	1	NC	1	ND	Not classified	NL	No	
Willow Creek Basin (HUC 10030204)								0.4
None crossed	NC	NC	NC	ND	B-2	2 & 2A	Yes	
Upper Milk River Basin (HUC 10050002)								6.7
Grassy Lake (160 acres)	1	NC	1	ND	Not classified	NL	No	
Red River	1	NC	1	ND	B-1	NL	No	
Red River	1	NC	1	ND	B-1	NL	No	
Red River	1	NC	1	ND	B-1	NL	No	
Unnamed Lake (40 acrea)	NC	1	NC	ND	Not classified	NL	No	
Unnamed Lake (63 acres)	NC	1	NC	ND	Not classified	NL	No	

APPENDIX J-1 SUMMARY OF SURFACE WATER IN THE ANALYSIS AREA								
Surface Water Body[a]	**Number of Crossings[b]**			**Flow Measured at nearest crossing[c]**	**Stream Classification[d]**	**303(d) Status[e]**	**Water Quality Summary[f]**	**Percent of Analysis Area Containing SubBasin**
	Alt 2	**Alt 3**	**Alt 4**					
Total Stream/River Crossings	10	6	17					
Total Pond/Lake Crossings	4	6	2					
Total Crossings	14	12	19					

Notes

Alt = alternative
cfs = cubic feet per second
NA = Not Applicable
NC = No Crossing
ND= No Data
NL= Not Listed on the 303(d) list

[a]This table lists all perennial streams and rivers in the analysis area, as well as, all ponds or lakes greater than 5 acres that would be crossed by one or more alternatives.

[b]Numbers in each column are the number of crossings for each surface water body per alternative.

[c]Flow measured at nearest crossing is from the U.S. Geological data base (USGS 2006). Stream flow measurement shown in this table is typically annual peak flow or near peak flow in cubic feet per second (cfs). Year and location for measurement are noted.

[d] Stream Classification Explanation

- A-CLOSED. Waters classified A-Closed are suitable for drinking, culinary, and food processing purposes after simple disinfection.
- A-1. Waters classified A-1 are suitable for drinking, culinary, and food processing purposes after conventional treatment for removal of naturally present impurities.
- B-1. Waters classified B-1 are suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.
- B-2. Waters classified B-2 are suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.
- B-3. Waters classified B-3 are suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

- C-1. Waters classified C-1 are suitable for bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.
- C-2. Waters classified C-2 are suitable for bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.
- C-3. Waters classified C-3 are suitable for bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of these waters is naturally marginal for drinking, culinary and food processing purposes, agriculture, and industrial water supply.

[e] Categorization of Surface Waters for 303(d) Listing

As of 2004, the EPA has requested that states adopt a five-part scheme for categorizing the assessment status of all waters in each state's water quality monitoring and assessment system. These five categories are used as follows:

- Category 1: Waters for which all applicable beneficial uses have been assessed and all uses are determined to be fully supported.
- Category 2: Waters for which available data and/or information indicate that some, but not all, of the beneficial uses are supported.
    - Subcategory 2A: Available data and/or information indicate that some, but not all, of the beneficial uses are supported.
- Category 3: Waters for which there are insufficient data to assess the use support of any applicable beneficial use, so no use support determinations have been made.
- Category 4: Waters where one or more beneficial uses have been assessed as being impaired, fully supporting but threatened, all TMDLs are completed but impaired beneficial uses have not yet achieved fully supporting status, or impaired and TMDLs are not required:
    - Subcategory 4A: All TMDLs needed to rectify all identified threats or impairments have been completed and approved.
    - Subcategory 4B: Waterbodies are on lands where "other pollution control requirements required by local, state, or federal authority" [see 40 CFR 130.7(b)(1)(iii)] are in place, are expected to address all waterbody-pollutant combinations, and attain all water quality standards in a reasonable period of time. These control requirements act "in lieu of" a TMDL, thus no actual TMDLs are required.
    - Subcategory 4C: Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a TMDL is not required.
- Category 5: Waters where one or more applicable beneficial uses have been assessed as being impaired or threatened and a TMDL is required to address the factors causing the impairment or threat.

[f] All available water quality summaries for surface water in the analysis area are provided in Appendix 3.5.

[g] The Marias River is shown as a Category 1 stream on the Draft 2006 DEQ Water Quality Report.